

REMARKS

Claims 1-7 are pending. Claims 1-7 are currently amended.

Specification

The Office action objected to the abstract of the disclosure because the acronyms SIP and ISP were not defined. Applicants have amended the abstract to incorporate this information, which a person of ordinary skill would readily have understood, and respectfully request approval of the amended abstract.

The Office action also indicated the title was not descriptive. Applicants have amended the title and respectfully request approval of the amended title.

Claim Objections

The Office action indicated claims 2-4, 6 and 7 should recite "The method" instead of "A method." Applicants have amended the claims to include these corrections and respectfully request withdrawal of the objections.

Claim Rejections

Claims 1-7 were rejected as unpatentable over Nakano et al. (U.S. Patent App. No. 2001/0044667) in view of Tamarkin et al. (U.S. Patent No. 6,256,769 B1). Applicants have amended independent claims 1 and 5 to recite, in part, a method of manufacturing a circuit device using a terminal and a server in which the circuit device is an SIP or an ISB circuit device covered with an insulating resin.

Claims 1 and 5 have also been amended to recite that the methods include a receiving condition received by the server as to whether or not the circuit device is a single layer structure or multilayer structure.

For example, as shown in the block diagram of FIG. 1, a user terminal 10 is connected to ISB server 12 which, in turn, is connected to an ISB factory 14 via a communication network. The conditions that are input to user terminal 10 are for an ISB or SIP circuit device (page 11,

lines 8-16). As disclosed in page 10, lines 15-20, an ISB circuit device (and a SIP circuit device in a wider sense) refers to a circuit device in which a plurality of circuit elements are covered with and supported by an insulating resin without providing a supporting substrate. Server 12 receives the conditions or specifications transmitted by user terminal 10, generates manufacturing data based on the specifications and transmits this manufacturing data to an ISB mounting factory 14 (page 11, lines 25-27 – page 12, line 1). The ISB mounting factory 14 then carries out the manufacturing steps necessary to form the device (page 12, lines 1-13). The ISB server 12 also determines whether an ISB circuit device would be configured to have a single layer structure or multi-layer structure based on the specifications input from the user terminal 10 (page 25, lines 5-13).

The Nakano et al. reference discloses a system for manufacturing a semiconductor integrated circuit that includes a client 1, a data-managing center 3, a designing center 4, and a manufacturing center 5 that are connected via the Internet 2 and which observes the following processing outline: the client 1 exchanges data with the data-managing center 3 (par. 58-61); the data-managing center 3 sends the data to the designing center 4 whereby “layout data” is generated (par. 61-62). After approval from client 1, the “layout data” is then transferred to the manufacturing center 5 that manufactures the semiconductor integrated circuit (par. 63-64).

Tamarkin et al. discloses an apparatus and method for defining circuit routing paths between electronic components on a printed circuit board (PCB) substrate.

Independent claims 1 and 5 specifically recite that the components of the SIP or ISB are covered with an insulating resin. The Office action alleges that “since resins are commonly used in PCBs, and PCBs are very well known and used in the art of ICs,” (page 4, lines 2-3) it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Tamarkin et al. with the system of Nakano et al in order to obtain the present claims. Applicant respectfully disagrees. It is well known in the art of manufacturing a PCB that, while the resin may act to support IC elements, it does not cover them. Therefore, it would not have been obvious to one of ordinary skill in the art to combine the cited references to obtain the claimed subject matter.

Furthermore, though Nakano et al. discloses the transmission of data between a client and a manufacturing center via the Internet, Nakano et al. discloses a method of designing an IC and does not disclose or suggest a method of manufacturing an SIP or ISB circuit device. Likewise, although Tamarkin et al. discloses a method of designing a PCB, Tamarkin et al. also does not disclose or suggest a method of manufacturing an SIP or ISB circuit device.

In addition, neither Nakano et al. nor Tamarkin et al. discloses transmitting to a server whether or not the circuit device is to be fabricated in a single layer structure or in a multilayer structure. Although Nakano et al. discloses the client 1 submits release information (paragraph 0083) to design center 4, this information does not include whether the semiconductor integrated circuit is a single layer or multilayer structure. Similarly, while the patent of Tamarkin et al. discloses that the PCB may be fabricated as a multilayer structure (col. 4, lines 18-29), it does not disclose that this information is transmitted to the substrate.

Independent claims 1 and 5 should be allowable for at least the foregoing reasons.

Claims 2-4 and 6-7 depend from claim 1 or 5 and should be allowable for at least the same reasons.

It is believed all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

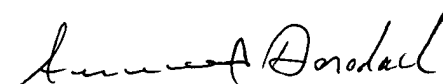
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Enclosed is a \$120.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 1/30/06



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